Filing Date: September 29, 2003

Title: REGULATED SLEEP TRANSISTOR APPARATUS, METHOD, AND SYSTEM

Assignee: Intel Corporation

REMARKS

This responds to the Office Action mailed on June 10, 2005.

Claims 1, 10, 16, 22, 26, and 28 are amended, claims 2-6, 14, 15, 25, 27, and 30 are canceled, and claims 31-39 are added; as a result, claims 1, 7-10, 16-23, 26, 28, 29, and 31-39 are now pending in this application.

§102 Rejection of the Claims

Claims 1-7 and 22-24 were rejected under 35 USC § 102(e) as being anticipated by Xi (U.S. Patent 6,667,735). In support of this rejection, the Office Action includes a figure. During a telephone conversation with Examiner Bao Vu on August 10, 2005, it was agreed that the figure in the Office Action is from U.S. Patent 6,806,690 by Xi, and not from U.S. Patent 6,667,735.

This rejection is traversed with respect to claim 6. Applicants respectfully submit that the Xi reference does not disclose, teach, or suggest the subject matter of claim 6, including for example, "the second control loop is adapted to sense a voltage between the transistor and the load circuit using a source of a second transistor." Claim 6 has been canceled, and claim 1 has been amended to include the limitations of claim 6 and all intervening claims. Accordingly, the traversal of this rejection with respect claim 6 now applies to claim 1, and applicants believe that claim 1 is in condition for allowance. Claims 2-6 have been canceled, and claim 7 is believed to be in condition for allowance at least by virtue of dependency.

Claim 22 has been amended to include additional limitations. Applicants respectfully submit that the Xi reference does not disclose, teach, or suggest the subject matter of claim 22 as amended, including for example, "sensing the voltage with a transistor source terminal and influencing operation of the sleep transistor in a second control loop." Accordingly, applicants believe that claim 22 is in condition for allowance. Claim 23 depends on claim 22 and is believed to be in condition for allowance at least by virtue of dependency. Claim 24 has been canceled.

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§103 Rejection of the Claims

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Claims 8, 9, 26-29 and 30 were rejected under 35 USC § 103(a) as being unpatentable over Xi (U.S. Patent 6,677,735) in view of Park (U.S. Patent 6,775,784). Claims 8 and 9 depend on claim 1, and are believed to be in condition for allowance, in part because claim 1 defines over the Xi reference. See the discussion of claim 1, above.

Claim 26 has been amended to include additional limitations. Applicants respectfully submit that the cited references, taken alone or in combination, do not disclose, teach, or suggest the subject matter of claim 26 as amended, including for example, "a second control loop including a sensing transistor coupled to sense a voltage variation on the load circuit using a source terminal". Accordingly, applicants believe that claim 26 is in condition for allowance. Claims 28 and 29 depend on claim 26 and are believed to be in condition for allowance at least by virtue of dependency. Claims 27 and 30 have been canceled.

Claims 10-21 and 28 were rejected under 35 USC § 103(a) as being unpatentable over Xi (U.S. Patent 6,677,735) in view of Park (U.S. Patent 6,775,784) and further in view of Keshavarzi et al. (U.S. Patent 6,765,414). This rejection is traversed with respect to claim 15 on the basis that a *prima facie* case of obviousness has not been established.

Applicants respectfully submit that the cited references, taken alone or in combination, do not disclose, teach, or suggest the subject matter of claim 15, including for example, "a second control loop including a sensing transistor coupled to sense a voltage variation using a source terminal." Claim 15 has been canceled, and claim 10 has been amended to include the limitations of claim 15 and all intervening claims. Accordingly, the traversal of this rejection with respect claim 15 now applies to claim 10, and applicants believe that claim 10 is in condition for allowance. Claims 11-14 have been canceled, and claims 16-21 are believed to be in condition for allowance at least by virtue of dependency.

Regarding claim 28, applicants respectfully submit that the cited combination of references does not disclose the subject matter of independent claim 26 as described above. Accordingly, applicants believe claim 28 is in condition for allowance at least by virtue of dependency.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116

Serial Number: 10/673,822

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New Claims

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Claims 31-39 have been added. Claim 31 depends on claim 22 which is believed to be in condition for allowance. Independent claim 32 is believed to define over the references of record. For example, the cited references do not disclose, teach, or suggest "the control circuit comprising a first control loop having an error amplifier and a second control loop having a sensing transistor with a source terminal coupled to sense a voltage on the load circuit."

Accordingly, independent claim 32 is believed to be in condition for allowance. Claims 33-39 are believed to further define over the references of record. For example, the cited references do not disclose, teach, or suggest "a bias transistor coupled between the sensing transistor and a second power supply node" as claimed in claim 33; "a voltage divider coupled between the power supply node and a node formed at a junction between the sensing transistor and bias transistor" as claimed in claim 34; or separate integrated circuit dice as claimed in claims 35 and 36.

Reservation of Rights

Applicants do not admit that references cited under 35 USC §§ 102(a), 102(e), 103/102(a), or 103/102(e) are prior art, and reserve the right to swear behind them at a later date. Arguments presented to distinguish such references should not be construed as admissions that the references are prior art.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116

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Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney (952-473-8800) to facilitate prosecution of this application.

Respectfully submitted,

PETER HAZUCHA ET AL.

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By their Representatives,

Customer Number 45445

Telephone Number 952-473-8800

Date 9-7-05

Dana B. LeMoine Reg. No. 40,062

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this _______ day of September, 2005.

Chris Hannond

Signature

Name